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Syndemic

Anthropologist Merrill Singer coined the term syndemic in the early 1990s to describe the mutually reinforcing nature of health crises such as substance abuse, violence, and AIDS that take hold in communities with harsh and inequitable living conditions. Observers throughout history have recognized that different disease processes interact, but Singer's innovation was to interpret those connections as evidence of a higher-order phenomenon, which he named a *syndemic*. A generic definition *is two or more afflictions, interacting synergistically, contributing to excess burden of disease in a population.*

Since the 1970s, health planners have understood that effective responses to the intertwined afflictions within communities require systemwide interventions. However, the desire to achieve systemic change stands in opposition to what most public health agencies are prepared to do. Ingrained in financial structures, problem-solving frameworks, statistical models, and the criteria for professional prestige is the idea, inherited from medical science, that each affliction can be prevented individually by understanding its unique causes and developing targeted interventions. Consequently, most practitioners operate with resources focused on one disease or risk factor, leaving other problems to be addressed by parallel enterprises.

Evaluations confirm that this single-issue approach can be effective in reducing temporarily the rate of a given disorder, but it cannot serve as a means for fulfilling society's ongoing interest in assuring the conditions in which people can be healthy. The main difficulty is that an exclusively disease-focused orientation prohibits a full view of the ways in which different afflictions interact. Conceptual and analytic boundaries drawn around disease categories invite simplifying assumptions such as independence and one-way causality, as well as instantaneous and linear effects. Such assumptions make the modeling task more tractable and can produce valid insights over a short time horizon, but are eventually misleading because they fail to account for the effects of causal feedback coming from outside the chosen boundary.

Proponents of a syndemic orientation do not dispute the benefits of addressing unique problems uniquely. Rather, they acknowledge the limitations of doing so and offer a complementary approach that places multiple afflictions in context. Even as colleagues continue to address specific health problems, others operating from a syndemic orientation may devise long-range policies that engage a different set of causal processes: those that configure patterns of affliction in society. By situating unique afflictions within the dynamic systems of which they are a part, a syndemic orientation concentrates on the conditions in which people can be healthy. It questions how and why those conditions differ among groups and goes even further to engage the struggle for directed social change.

For evaluators of health programs and policies, a syndemic orientation involves not just one, but a sequence of shifts in perspective. Each view offers a conceptual and a mathematical formalism that is both comprehensive and context-sensitive, a combination that is notoriously difficult to achieve using conventional evaluation schemes.

The first shift in perspective involves seeing more than one problem at a time; this is the crux of the syndemic idea. Mapping connections among afflictions provides a more complete picture of the health challenge in a community. It also lays the foundation for using formal network analyses to measure the strength and structural properties of linked afflictions.

Next comes the shift from recognizing linked afflictions to understanding causality within dynamic feedback systems. To comprehend why syndemics develop and how they can be controlled, evaluators must widen their analytic boundary beyond the attributable causes of the afflictions themselves, including, at a minimum, interactions among afflictions, living conditions, and the community's strength to address them both. For problems with long delays (e.g., chronic disease), this modeling approach yields more precise information about the causal influence of forces that are neither close in time nor near in space to the health events of interest. Dynamic modeling also allows evaluators to simulate policy scenarios under given community conditions. Controlled experiments using simulation improve the search for interventions that can be effective without incurring the expense, risk, delay, and other barriers to learning inherent in real-world experimentation.

A final shift embraces the world of political action, where policy becomes reality. Insights from systems modeling often reveal a number of possible futures and raise questions about strategic direction and agency, questions about the ends and means of social navigation. The navigational view frames changing conditions as the result of contested choices among an infinite number of possible directions. Those directions may be represented formally with circular statistics, as they are in physical navigation; however, their meaning in a social context pertains to the contours of human values. This portrayal highlights tensions between advocates of change in one direction versus of another, thereby allowing an assessment of power alliances and the health implications of different policy positions. Guided by an explicit moral compass, public health leaders may use a navigational approach to transcend ad hoc problem solving and exert greater control in keeping society on course toward a safer, healthier future. The navigational view also corrects a false presumption, deeply seated in popular consciousness, that only health professionals are capable of solving health problems. In fact, genuine movement toward healthier conditions is not possible unless ordinary citizens, working individually and collectively, make healthier choices in their public and private lives.

Aspects of a syndemic orientation incorporate twenty-first century systems science, but the underlying concepts are not new. Still, the implications of adhering to this orientation remain largely unexplored. Recognition of the term is growing and a widening conversation is under way, but it will likely take decades for such transformations in thinking and practice to occur. At this early stage it is apparent that the orientation holds promise for confronting modern public health challenges. It does not impose a single, rigid model but instead offers a systems-oriented, politically engaged, and philosophically conscious frame of reference that health professionals and other citizens can use for working effectively together. The Centers for Disease Control and Prevention coordinates a Syndemics Prevention Network dedicated to exploring what this orientation entails.

See also: social ecology; ecological theories; systems

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Author's Biographical Sketch

Bobby Milstein is an evaluation coordinator at the Centers for Disease Control and Prevention. In 1997 he helped launch the CDC Evaluation Working Group, which established CDC's policy on program evaluation and strengthened efforts to enhance evaluation capacity throughout the public health system. He now leads the Syndemics Prevention Network and specializes in the evaluation of complex initiatives to assure the conditions in which people can be healthy.

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